

ABSTRACT OF THE INVENTION

A protection switch for use in a two-fiber optical channel shared protection ring is disclosed. It includes an electrical switching circuit coupled to an optical signal monitor. The electrical switching circuit includes modular switching fabrics that respond to fault condition alarms provided by the optical signal monitor. Each modular switching fabric is versatile in that it includes a ring switch mode responsive to the multi-wavelength channel failures, and a span switch mode responsive to the single wavelength channel failures. Because the switching fabric of the electrical switching circuit is comprised of the plurality of small modular switching fabrics, the possibility of incurring a single-point switching failure in the switching fabric is virtually eliminated. Further, each modular switching fabric can be easily replaced in the event of failure, without affecting the operation of other switch fabrics within the protection switch.